3670 Disc Storage Subsystem
General

The Memorex 3670 Disc Storage Subsystem is a plug-compatible replacement for the IBM 3330 Disc Storage Facility on the IBM System/370. With the optional 2860 Selector Channel Attachment feature, all of the performance and functional capability of the 3670 become available to large IBM System/360 systems running under OS MFT/MVT. Significant features, standard on the 3670, include Rotational Position Sensing, Multiple Requesting, and Command Retry.

The Memorex 3670 Disc Storage Subsystem may be comprised of a 3671 Storage Control Unit and from one to four 3670 Disc Drive Modules. In this configuration, the 3670 subsystem is the equivalent of the IBM 3830 Model 1/3330 Storage Facility.

In larger configurations, the Memorex 3670 Disc Storage Subsystem may be comprised of a 3672 Storage Control Unit, from one to four 3673 Disc Controllers, and from one to sixteen 3670 and/or 3675 Disc Drive Modules. Using the 3672 Storage Control Unit, a maximum subsystem capacity of over 6.4 billion bytes may be achieved.

Additionally, the Memorex 3673 Disc Controller allows the attachment of 3670 and/or 3675 Disc Drive Modules to the IBM integrated 3330 attachments on the System/370 Models 125, 135, 145, 158, and 168.

With the optional Multiple Channel Switching and String Switching features, the 3670 Disc Storage Subsystem may be accessed by alternate channels and/or control units from a single processor or shared by multiple processors.

3672 Storage Control Unit
Description

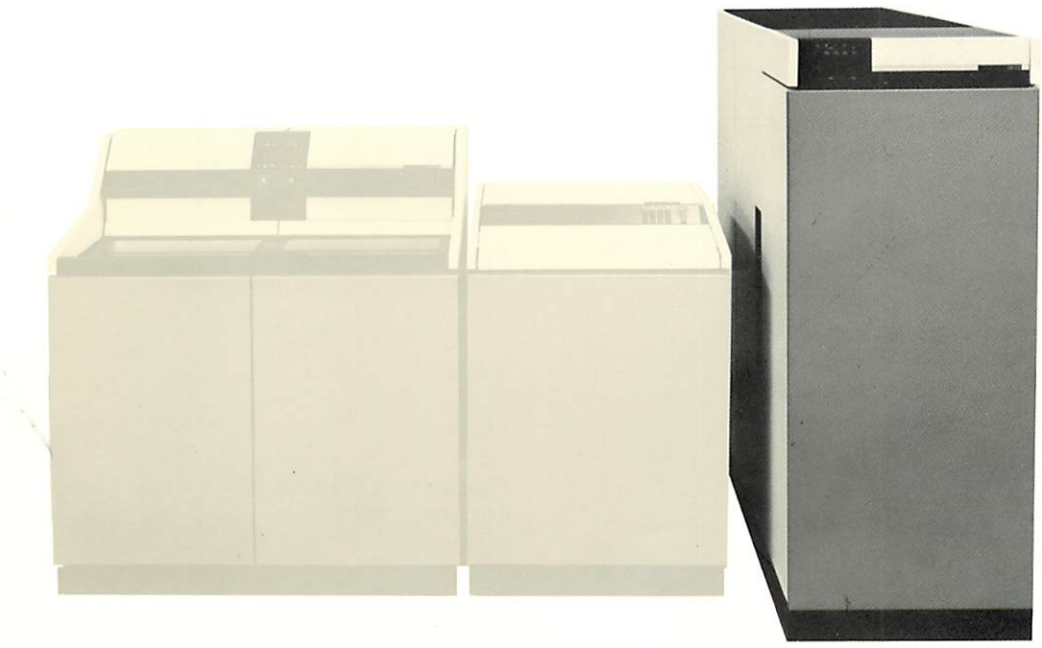
The Memorex 3672 Storage Control Unit provides the capability for attachment of 3673 Disc Controllers and associated 3670/3675 Disc Drive Modules to the IBM System/360 Model 195 and IBM System/370 Models 135 and up. The 3672 is both hardware and software compatible with the IBM 3830 Model 2 when used in combination with the 3333/3330 Disc Storage Facility.

Optionally, the 3672 may address up to sixteen 3670/3675 Disc Drive Modules (thirty-two drives) via four 3673 Disc Controllers for a total subsystem capacity of over 6.4 billion bytes. The optional String Switch Attachment Feature provides support for the 3673 String Switch and should be used in critical applications requiring the ultimate in disc drive availability and subsystem performance. The 3672 may interface using the optional 2860 Selector Channel Attachment feature to System/360 models 65, 67, 75, 91, and 95, with full functional capability. Software support for selector channel attachment is Memorex provided . . . OS MFT/MVT. Optional Multiple Channel Switching permits sharing of the 3672 Storage Control Unit by two, three, or four processors . . . System/360 and/or System/370.

The 3672 is a microprogrammed controller with a read/write monolithic memory, having its program loaded during the power on sequence from a disc cartridge located within the 3672. This small cartridge is easily interchanged with another so that program updates are facilitated and controlled simply by changing the disc.

MEMOREX

3672 Storage Control Unit



MEMOREX

3672 Storage Control Unit

3672 Storage Control Unit Features

Microprograms are stored in a read/write monolithic memory loaded from a small disc cartridge in the 3672. The cartridge contains the operating microprogram, diagnostic programs, and other backup programs.

Operating programs are loaded from the disc cartridge during the power on sequence.

Comprehensive diagnostic programs are loaded from the disc cartridge under the Control of a Field Engineering console contained within the 3672.

Disconnected Command Chaining permits the 3672 to release the channel during mechanical movement within the 3670 module. Multiple Requesting allows up to thirty-two channel programs (one per spindle) to be active in the 3672 at one time. These two complementary features greatly increase performance.

Command Retry, coupled with extensive error correction capability, allows the 3672 to correct the majority of errors without the intervention of the host processor.

3672 Storage Control Unit Optional Features

Multiple Channel Switching
Two, three, and four channel switching permit alternate channels from the same or multiple processors to share the 3670 Subsystem.

3675 Support
Permits the attachment of the double capacity 3675 Disc Drive Module to the 3672 Storage Control Unit (via the 3673 Disc Controller).

2860 Selector Channel Attachment
Permits full function 3670/3675 attachment to IBM System/360 models 65, 67, 75, 91, 95 under OS MFT/MVT. Software and diagnostic support is provided for Rotational Position Sensing, Multiple Requesting, Disconnected Command Chaining, and Command Retry.
Prerequisite: Expanded Capability

String Switch Attachment
Provides the internal logic support for the attachment of the 3673 String Switch to the 3672.

Expanded Capability
Increases the capability of the 3672 microprocessor to handle additional features unavailable on the standard 3672.

32 Drive Addressing
Provides the additional control logic for attachment of up to four 3673 Disc Controllers and associated drives on a single 3672 (maximum of thirty-two drives).
Prerequisite: Expanded Capability

3672 Storage Control Unit Highlights

System Interface
System/370 and System/360 models 85 and 195: Attaches to Block Multiplexer Channel.

System/360 models 65, 67, 75, 91, 95, through optional 2860 Selector Channel Attachment feature: Attaches to 2860 Selector Channel.

Data Transfer Rate
806,000 bytes/second.

System Limitation
Operates with System/370 or any other system compatible with the IBM 3330 with configuration limitations equivalent to the IBM 3330.

With optional 2860 Selector Channel Attachment feature, operates with System/360 models 65, 67, 75, 91, 95, under OS MFT/MVT (Release 21.6 and subsequent).

Power Requirements
208/230 VAC, 60 ± ½ Hz, 3 Phase, 15 AMP
220/380 VAC, 50 ± ½ Hz, 3 Phase, 15 AMP
(modules powered from 3673)

Physical Dimensions
24 (w) x 60 (h) x 60 (d) inches
61.0 (w) x 152.4 (h) x 152.4 (d) cm

Weight
850 lbs.
(386 kg)

Operating Environment
60°-90°F, 20%-80% Relative Humidity
(16°-32°C)

BTU Output
9,000 BTU/hour

Memorex Corporation

Equipment Products Group
San Tomas at Central Expressway
Santa Clara, California 95052

EPG 011-0 5/77 PRINTED IN U.S.A.